

Appl. No. : 10/759,953
Filed : January 16, 2004

REMARKS

Claims 1-3, 5-19, and 45 are pending. Claims 11-13 were previously withdrawn. Claims 1-3, 5-10, 14-19, and 45 stand rejected. Applicants thank the Examiner for acknowledging that the claims are nonobvious over the teachings in Shang (EP 0697467), Iyer (U.S. Pat. No. 6,498,109), and Igarashi (U.S. Pat. No. 5,031,571) when combined with Yin ('812), Sun ('183), and/or Fukuda ('578). Applicants thank the Examiner for withdrawing the previous rejections involving Yin, Sun and Fukuda.

The Examiner has maintained his previous rejections in regard to his proposed combination of Shang, Igarashi, Iyer and Fong (U.S. Pat Nos: 5,939,831 and 5,812,403). The Examiner has asserted that Fong teaches a valve as recited in the claims. The Examiner has also stated that the teachings in Yin, Sun, and Fukuda are not relevant to the current rejection. Applicants respectfully note that the Examiner's reasons for continuing to reject the current claims in light of Fong are based on incorrect factual assertions regarding the teachings of Fong and incorrect legal principles. This is discussed in more detail below.

One of skill in the art would not have read Fong et al. as teaching or suggesting the recited valve device in the relevant context.

The Examiner has asserted that Fong et al. (U.S. Pat Nos: 5,939,831 and 5,812,403) teaches a valve that, when opened, provides an opening having substantially the same size as the piping and lacking any projections into the passage in the valve (Office Action, page 8). Implicit in this assertion is an additional assertion that Fong et al. teaches some desirability for the relevant valve in the presently claimed context. Applicants respectfully disagree with both of these assertions. Fong et al. does not teach the relevant valve. Additionally, even if Fong et al. (or some other reference) did show the relevant valve, there is no motivation supplied by Fong et al. (or in the Office Action) as to why one would use the particular type of valve that is presently recited in the claims, in the presently claimed context.

The cited sections of Fong et al. (FIGs. 6a and 3) only teach the general concept of a gate valve at a particular location. However, the items in the figures are merely schematics of valves (partial block diagrams) and are largely silent in regard to the inner structure of the valves. Additionally, while a flow path is generally depicted as passing through the depicted valves,

there is no discussion or depiction regarding the valve body (the part of the valve that can obstruct the opening) or how the valve body relates to the opening in the opened or closed arrangements. The teaching of a flow path in a valve, without a teaching of the valve body, is not sufficient to teach or suggest the presence or desirability of the presently recited valve in the recited context. As such, Fong et al. does not teach or suggest the presence of the particularly recited valve in the recited context.

While Applicants believe that this absence of teaching or suggestion is abundantly clear from the figures themselves (which are completely silent with regard to the valve body), Applicants are submitting a declaration by one of skill in the art, Kiyoshi Satoh, who is clearly a skilled artisan, that discusses how one of skill in the art would view the actual teachings of the relevant valve in Fong et al.

Mr. Satoh's signed Declaration supports the present and previous interpretations of Fong et al. In item 4 of the Declaration, Mr. Satoh states that Fong does not teach the relevant valve, as presently claimed. Mr. Satoh notes that the cited sections in Fong (Figures 3 and 6a) merely demonstrate a schematic of the concept of a gate valve and not the particularly recited valve. In particular, Figure 3 merely represents the valve as a block 280 with a fluid passage 293 passing through it. Furthermore, the Declaration confirms that Fong does not disclose the actual valve body or how it is involved with the valve opening. Thus, there is no disclosure regarding the actual position of the valve body when the valve is fully opened. The Declaration also confirms that Figure 6a simply represents the valve 280 as a block diagram with a passageway. There is no depiction of the actual valve body. The Declaration further confirms that there is no actual teaching in Fong et al. that the valve is configured so that, when fully opened, the opening through the valve is substantially equal in width to an inner surface of the piping and/or the valve does not have projections with respect to the inner surface of the piping.

The Examiner is respectfully reminded that the prior art must be viewed through the eyes of one of skill in the art; it is not permissible to use hindsight, or the present disclosure, in interpreting the teachings in the prior art.¹ Mr. Satoh's declaration clearly establishes that,

¹ "It is difficult but necessary that the decision maker forget what he or she has been taught . . . about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art.' *W.L. Gore &*

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contrary to the unsupported assertions made in the Office Action, Fong et al. does not teach the relevant valve in the two cited figures because there is no disclosure of a valve body, how it works, or where the valve body is located when the valve is opened.

Applicants respectfully submit that one of skill in the art would not have read Fong as teaching or suggesting the presently recited valve in the present claims. As every element has not been taught and no motivation has been supplied as to why the particular type of valve would be used in the particularly claimed context, a *prima facie* case of obviousness has not been established.

It is Legal Error for the Examiner to Ignore Teachings in the Prior Art.

In making the current rejections, the Examiner has relied on the above asserted (and incorrect) teachings of Fong et al. while ignoring numerous other, relevant, references that taught the value of restricting the flow of gas in various manners and therefore away from the application of the recited valve in the presently claimed arrangement. Indeed, the following finding of the Examiner is clearly legally incorrect:

...it does not matter what the prior art, not used in the rejection, teaches. Only the teachings of the prior art used in the rejection are relevant.” (Office Action, page 9).

Contrary to this finding, the prior art, as a whole must be considered.² It is well established that “[t]he totality of the prior art must be considered, and proceeding contrary to accepted wisdom in the art is evidence of nonobviousness. *In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986)” (emphasis added, M.P.E.P. § 2145(X)(D)(3) and see *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (emphasis added, Fed. Cir. 1988) (“...the full field of the invention must be considered... the person of ordinary skill is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention.”)).

Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).” M.P.E.P. §2141.01(III)

² (“A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) “ (M.P.E.P. §2141.02(VI)).

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As apparently acknowledged by the Examiner in regard to Yin, Sun, and Fukuda, the cited art generally taught away from various aspects of the presently claimed combination. The teachings in Fong et al. do not rebut the teachings in the above references. Rather, as noted above, Fong et al. is silent in regard to the valve body in the valve, and thus, is silent in regard to the valve as recited in the claims. Applicants submit that the art (*e.g.*, Yin, Sun, Fukuda, Shang, and Fong) when considered as a whole, establishes that one of skill in the art would not have been motivated to use the presently recited valve in the claimed combination. Applicants respectfully request that the Examiner withdraw the rejection of the claims.

Shang demonstrates the issues those of skill in the art were concerned with and those issues they were not concerned with.

Given some of the Examiner's remarks in item "f" on page 9 of the Office Action, some additional clarifying remarks may be useful. The teaching of the filter in Shang was presented as yet another example demonstrating a standard apparatus and relevant issues in the art. Shang demonstrates that those of skill in the art were doing things that were at odds with reducing the amount of restriction in the flow path. Regarding, the "commutative" effect of a filter and a valve, Applicants note that, even assuming the Examiner's arguments are correct, the use of filters and restrictive valves in the prior art still demonstrates that one of skill in the art either desired restriction or did not recognize that it was an issue worth worrying about. In contrast to what is asserted in the Office Action, there appears to be no concern in the art regarding a loss of efficiency at a valve when using a remote plasma for CVD chamber cleaning. Applicants respectfully request that the rejections be withdrawn and the claims allowed.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance and request the same. If, however, some issue remains that the Examiner feels can be addressed by Examiner Amendment, the Examiner is cordially invited to call the undersigned for authorization.

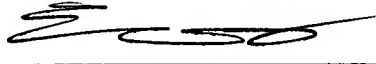
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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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